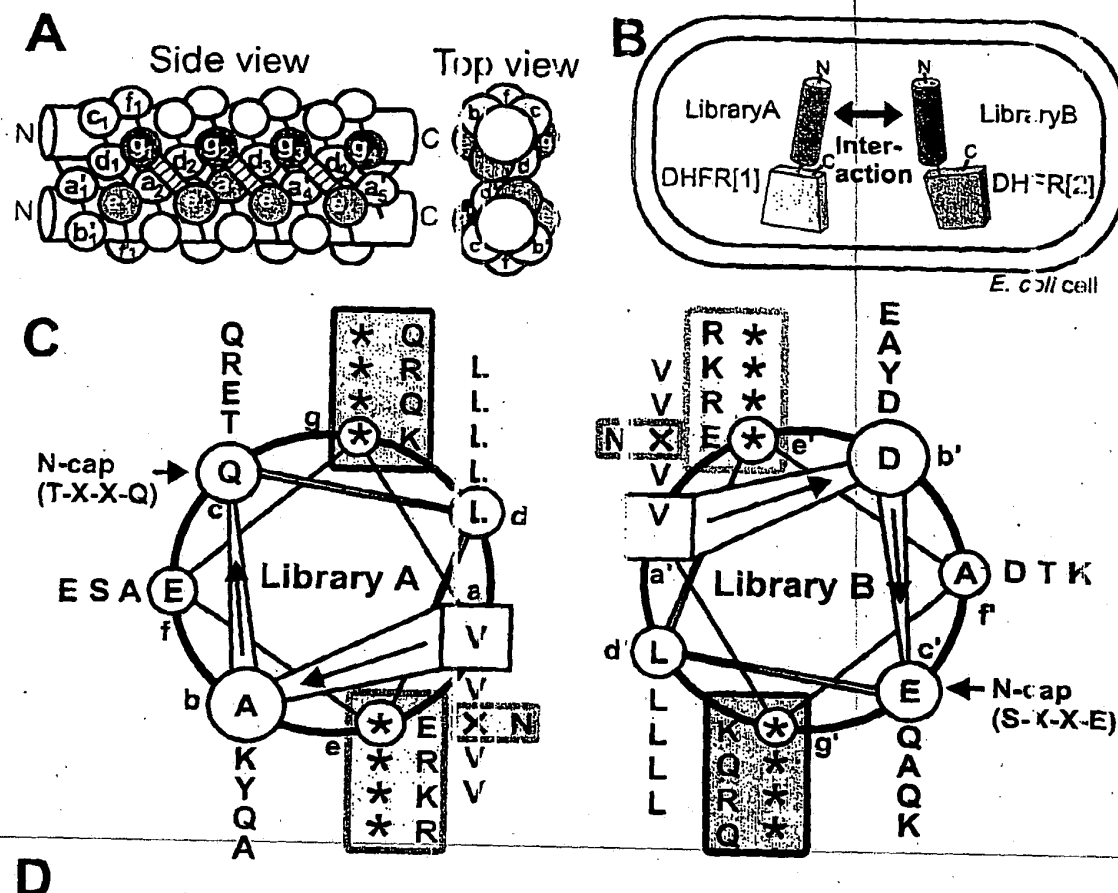


Figure 1:

**D**

clone (occurrence)	Library A										Library B									
	e1	g1	e2	g2	a3	e3	g3	e4	g4		e'1	g'1	e'2	g'2	a'3	e'3	g'3	e'4	g'4	
#1 (22x)	E	K	R	Q	N	K	R	R	C		Q	E	Q	E	N	K	K	R	K	
#2 (3x)	Q	K	R	R	N	K	E	E	K		E	E	K	Q	N	K	K	Q	Q	
#3 (2x)	E	Q	Q	R	N	K	K	K	K		R	K	Q	E	N	E	E	Q	R	
#4 (1x)	E	R	R	Q	N	K	K	E	C		E	E	E	Q	N	Q	R	E	R	
#5 (1x)	E	Q	E	E	N	K	K	R	R		K	K	K	K	N	R	K	R	K	
#6 (3x)	Q	Q	E	Q	N	E	E	K	Q		R	Q	Q	K	N	R	R	K	R	
#7 (2x)	E	R	K	E	N	E	E	K	R		Q	E	Q	Q	N	R	Q	K	K	
#8 (1x)	E	K	K	K	N	K	K	K	K		R	Q	E	Q	N	E	Q	E	E	
#9 (1x)	Q	E	Q	E	N	R	E	E	E		Q	K	K	E	N	Q	K	Q	R	
#10 (1x)	R	R	R	R	N	Q	K	K	R		R	E	E	E	N	R	R	R	Q	

Figure 2:

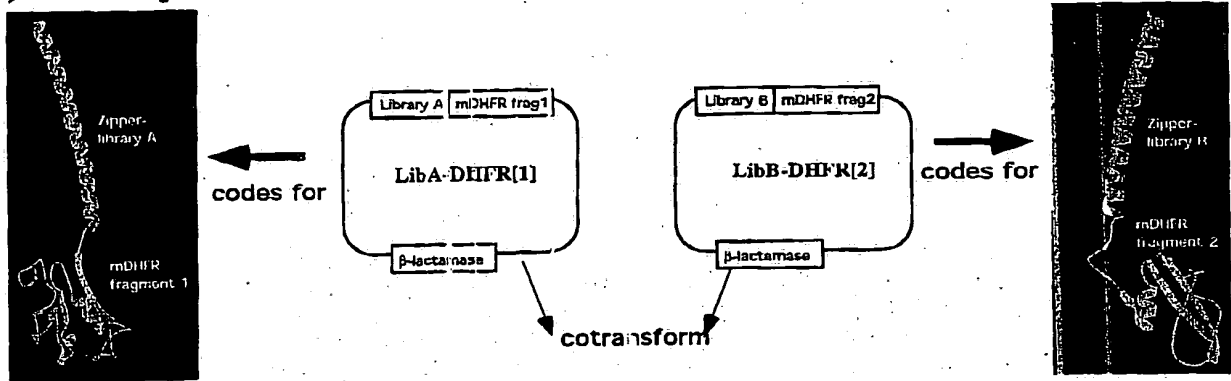
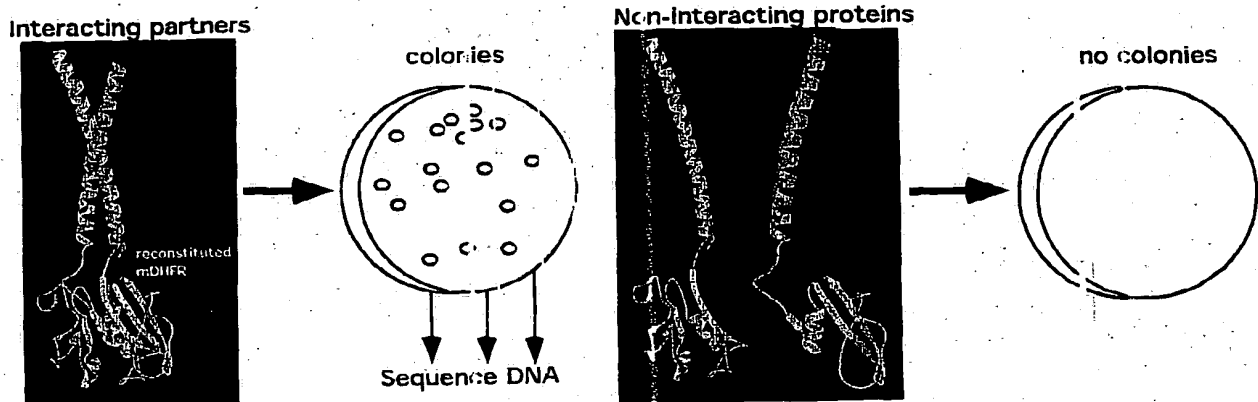
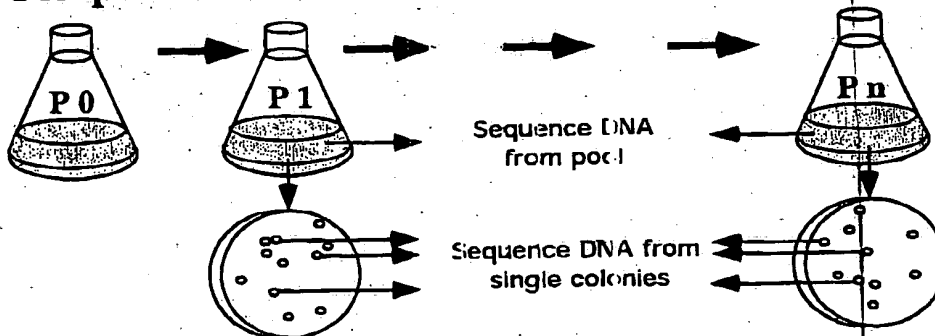
(A) Library constructs**(B) Single-step selection****(C) Competition selection**

Figure 3:

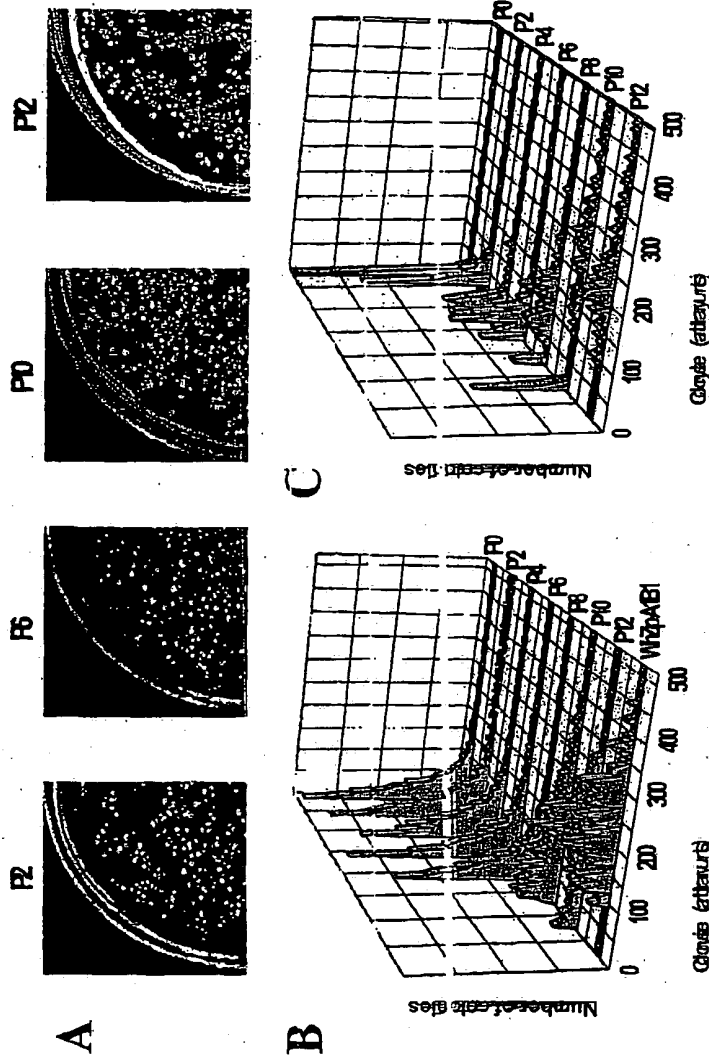


Figure 5:

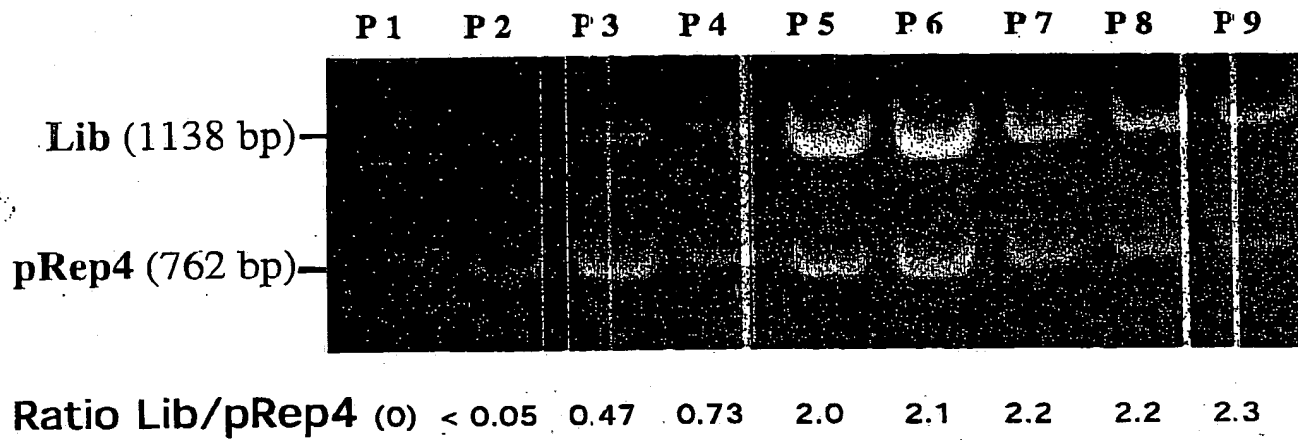


Figure 6:

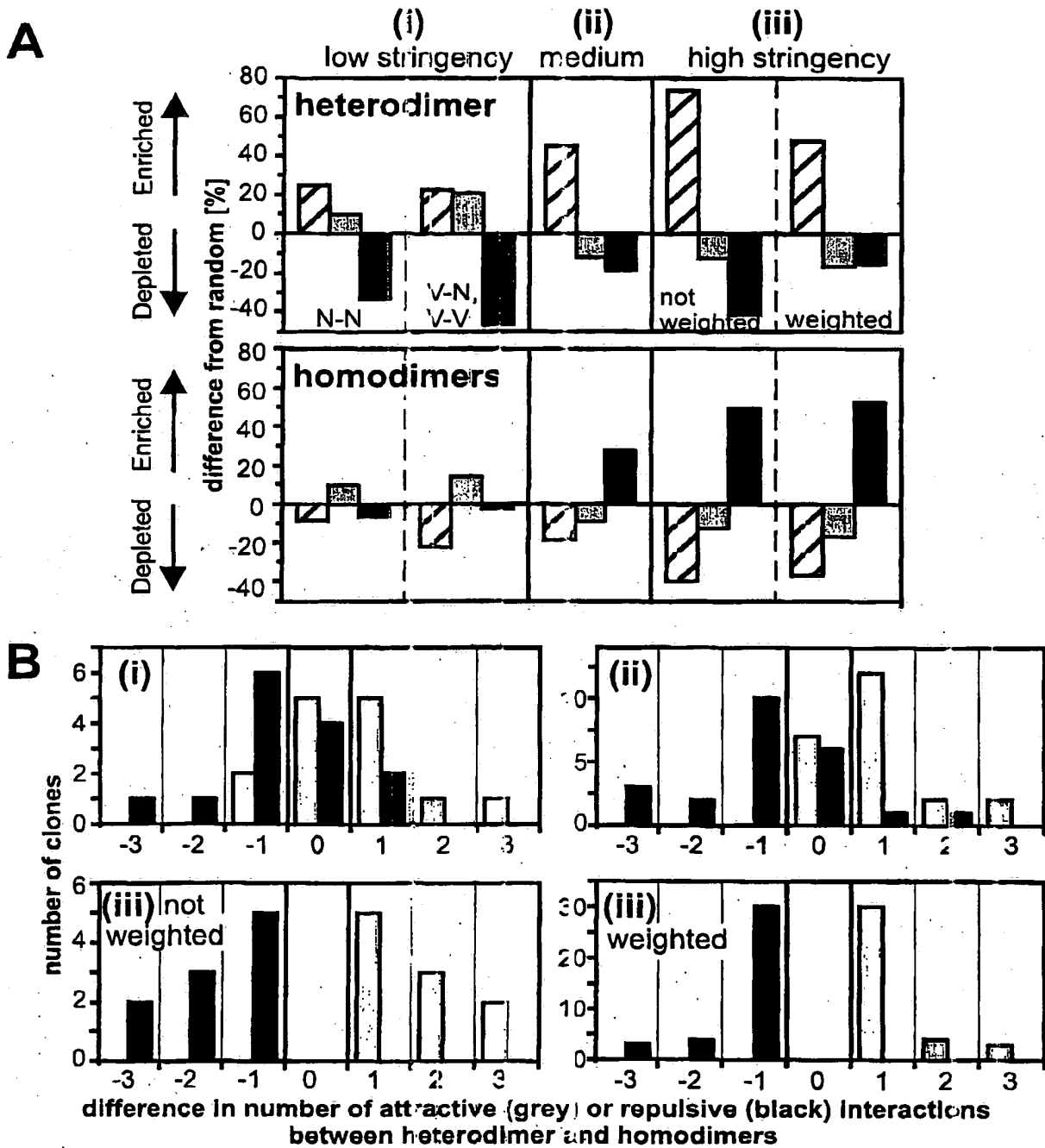


Figure 7:

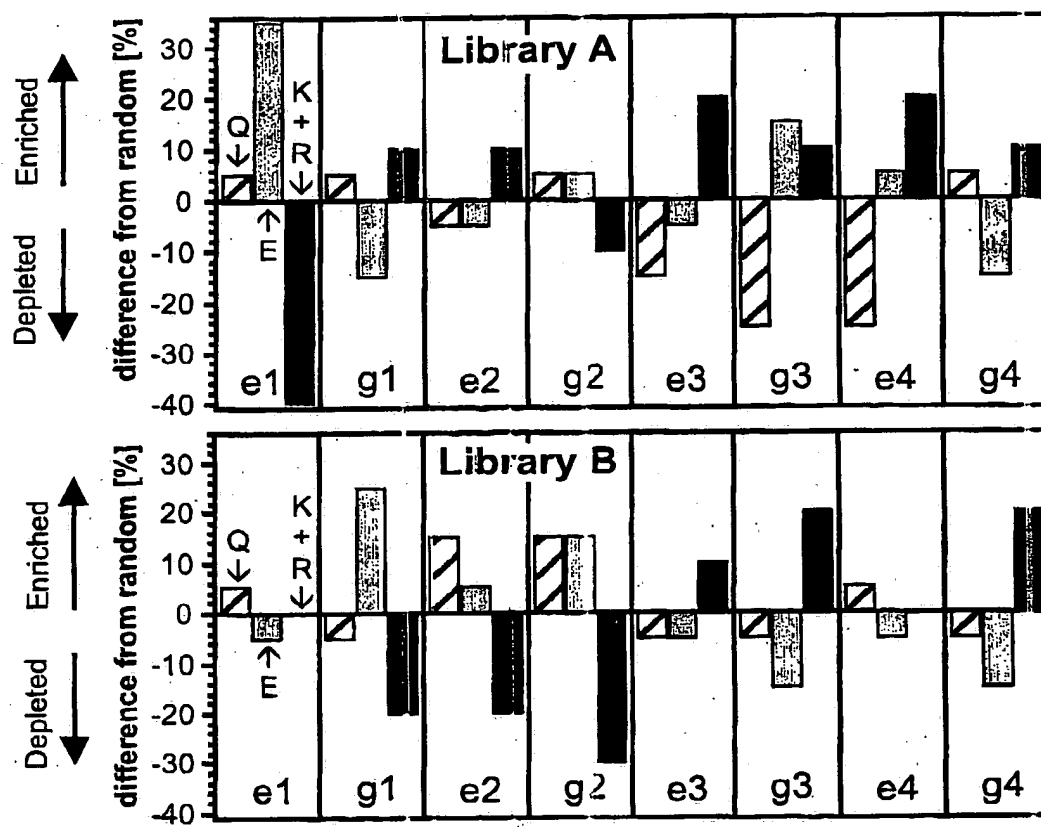


Figure 8:

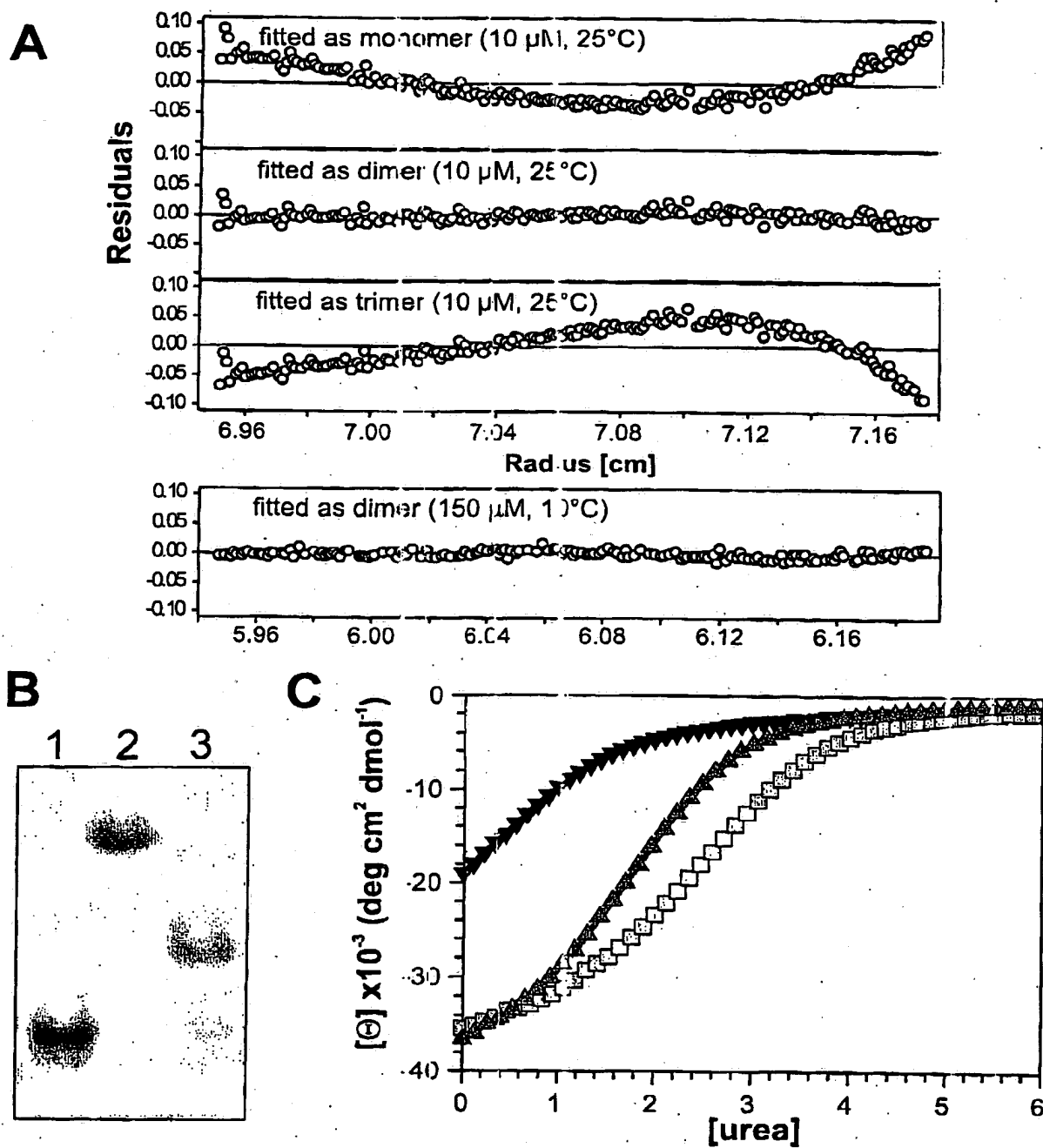


Figure 9:

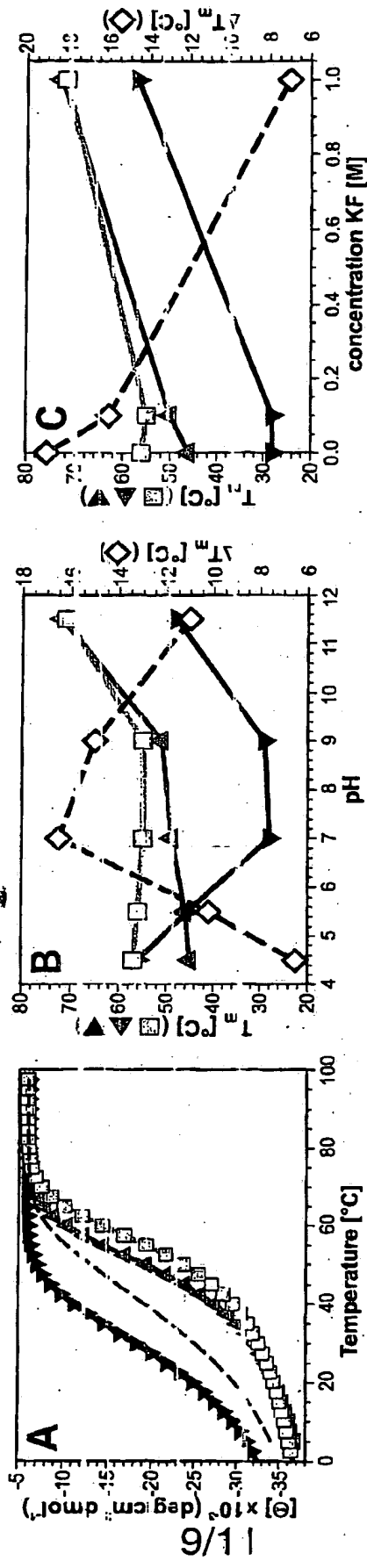


Figure 10:

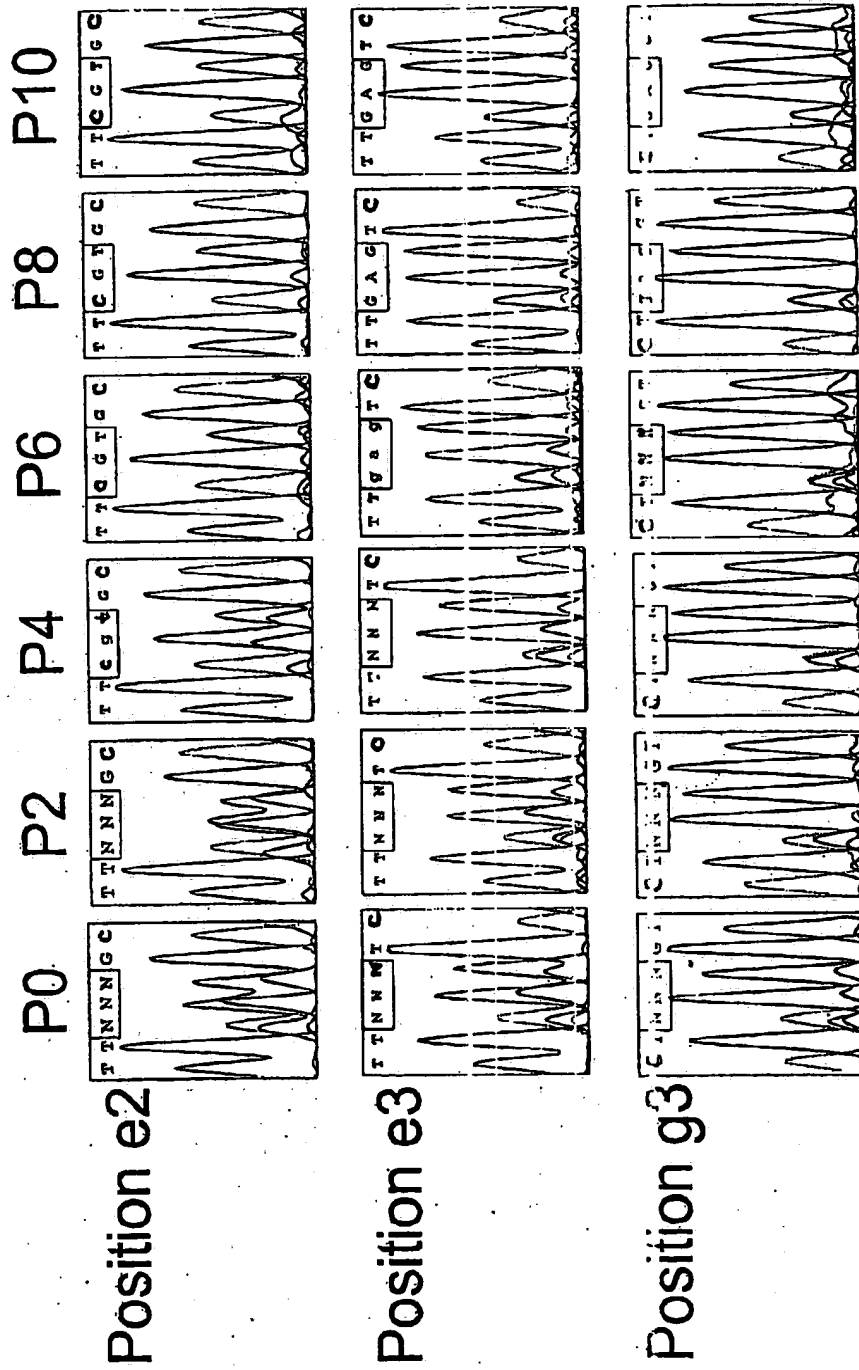


Figure 11:

(A)

WinZipA1: VAQLEEKVKTLRAQNYELKSRVQRLREQVAQL
 WinZipA2: VAQLRERVKTLRAQNYELESEVQRLREQVAQL
 WinZipA3: VAQLQEKVKTLRAQNYELKSEVQRLQEKVAQL
 WinZipA4: VAQLEEQVKTLQARNYELKSKVQRLKEKVAQL
 WinZipA5: VAQLEERVKTLRAQNYELKSKVQRLQEEQVAQL
 WinZipA6: VAQLEEQVKTLQARNYELKSKVQRLRERVAQL
 WinZipA7: VAQLQEQVKTLQARNYELESEVQRLKEQVAQL
 WinZipA8: VAQLEERVKTLKAENYELESEVQRLKERVAQL
 WinZipA9: VAQLEEKVKTLKAKNYELKSKVQRLKEKVAQL
 WinZipA10: VAQLQEEVKTLQARNYELRSEVQRLQEEVAQL
 WinZipA11: VAQLRERVKTLRAQNYELQSKVQRLKERVAQL

(B)

WinZipB1: VDELQAEVDQLQDENYALKTKVAQLRKKVEKL
 WinZipB2: VDELKAEVDQLQDENYALRTKVAQLRKEVEKL
 WinZipB3: VDELEAEVDQLKQDENYALKTKVAQLQKQVEKL
 WinZipB4: VDELRAKVDQLQDENYALETEVAQLQKRVEKL
 WinZipB5: VDELEAEVDQLEQDENYALQTRVAQLEKRVEKL
 WinZipB6: VDELKAKVDQLKQKNYALRTKVAQLRKKVEKL
 WinZipB7: VDELRAQVDQLQKNYALRTRVAQLKKRVEKL
 WinZipB8: VDELQAEVDQLQDENYALRTQVAQLKKKVEKL
 WinZipB9: VDELRAQVDQLEQDENYALETQVAQLEKEVEKL
 WinZipB10: VDELQAKVDQLKQKNYALQTKVAQLQKRVEKL
 WinZipB11: VDELRAEVDQLEIENYALRTRVAQLRKQVEKL